DOCUMENT RESUME

ED 384 844 CG 026 313

AUTHOR Earles, Jay E.
TITLE Systemic Interventions in the Treatment of Substance Abuse.
PUB DATE May 94
NOTE 82p.; Doctoral Research Paper, Biola University.
PUB TYPE Dissertations/Theses - Undetermined (040)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Counseling; Drug Abuse; Family Environment; *Intervention; Meta Analysis; *Methods Research; Research Design; *Research Methodology; *Substance Abuse; *Systems Approach; Therapy
IDENTIFIERS Addictive Behavior; Empirical Research; *Family Therapy; *Marital Therapy

ABSTRACT

The widespread problem of substance abuse negatively affects users and their families. This paper provides a methodological review of empirical studies that focused on systemic interventions (particularly marital and family therapy) in the treatment of substance abuse. The articles examined here focused on engaging the addict in treatment, reducing addictive behavior, and maintaining recovery while readjusting the interpersonal environment of the addict. Analyses of these studies centered on subjects, therapists, dependent measures, treatment specification, experimental design, and data analysis and interpretation of results. Three weaknesses were found in the subject section: (1) insufficient selection criteria; (2) inadequate subject description; and (3) small sample sizes. Neither the therapist's characteristics nor the treatment specifications are clarified adequately in many studies. A concern with the dependent measures of the research was the inconsistent use of multi-modal outcome measures. Experimental design weaknesses include the comparison of inequitable treatments. Finally, data analysis was frequently incomplete due to the fact that drop-outs were not included in the final analysis of results. Although these methodological considerations are serious, the quality of current research has improved. A discussion of the overall methodological considerations of substance abuse and systemic therapy research precedes the review of studies. (RJM)

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ED 384 844

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SYSTEMIC INTERVENTIONS IN THE TREATMENT OF SUBSTANCE ABUSE

A Doctoral Research Paper

Presented to

the Faculty of Rosemead School of Psychology

Biola University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Psychology

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by

Jay E. Earles

May, 1994

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SYSTEMIC INTERVENTIONS IN THE TREATMENT OF SUBSTANCE ABUSE

by

Jay E. Earles

APPROVED:

Marcia B. Stroup
First Reader

Date 7/18/94

John L. Sturgeon
Second Reader

Date 7/18/94

APPROVED:

Dean

7/18/94
Date

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ABSTRACT

SYSTEMIC INTERVENTIONS IN THE TREATMENT OF SUBSTANCE ABUSE

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This paper is a methodological review of empirical articles focusing on systemic interventions, particularly marital and family therapy, in the treatment of substance abuse. Systemic therapy has been found to be helpful in Prochaska and DiClemente's (1983) three stages of recovery from addiction: 1) engaging the addict in treatment, 2) reducing addictive behavior, and 3) maintaining recovery while readjusting the interpersonal environment of the addict. The last stage includes the readjusting of the family system. Empirical articles since 1978 utilizing family systems therapy with either alcoholics or drug addicts and their spouses and/or families-of-origin are reviewed. A discussion of the overall methodological considerations of the substance abuse and systemic therapy research precedes the review. Implications for future research and treatment are outlined.

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SYSTEMIC INTERVENTIONS IN THE TREATMENT OF SUBSTANCE ABUSE

Introduction

Over the last several decades the treatment of substance abuse has received much attention from the mental health field. This paper will specifically focus on systemic interventions, particularly marital and family therapy, in the treatment of substance abuse.

The continued focus on substance abuse by mental health professionals is very appropriate considering the extensive number of addicts in this country. In 1987 there were approximately 12 million people addicted to alcohol, drugs or both (Herrington, Jacobson, & Benger, 1987). The number of addicts is projected to rise through at least 1995 as well (Williams, Stinson, Parker, Harford, & Noble, 1987). Accordingly, the frequency of serious social, educational, legal and occupational consequences to the abuser resulting from increased use of substances is mounting (Hansen & Engs, 1992). Adverse consequences are not limited solely to individual addicts either, as abusers may negatively affect up to four other people with whom they are interpersonally close (Herrington et al., 1987).

Since people generally interact most with their families, it is usually their close relatives who are

primarily impacted. Marriages suffer (Paolino & McCrady, 1977; Jacob, Richey, Cvitkovic, & Blane, 1981; O'Farrell, & Birchler, 1987) as well as parent-child interactions (Rubio-Stipec, Bird, Canino, Bravo, & Alegria, 1991; Cumes-Rayner et al., 1992; Jones & Houts, 1992). There is also evidence, however, that substance abuse is maintained by family members and may even facilitate communication at times (Frankenstein, Hay, & Nathan, 1985; Jacob & Leonard, 1988). Therefore, therapy with a family systems approach may be particularly helpful in treating substance abuse because of the reciprocal nature of abuse and familial relationships.

Despite the evidence of the familial impact of addictions, many of the current treatment modalities limit therapy to the addict and/or concurrent care for family members. Pharmacological therapy, group therapy, twelve-step support groups, cognitive-behavioral approaches, assertiveness training and psychodynamic therapy specifically typify this lack of systemic intervention (French, 1987). Corresponding philosophies of etiology, such as genetic (Goodwin, 1971), neurobiological (Litten & Allen, 1991) and Jellinek's (1960) disease model, have also focused on the individual addict. Treating the addict alone is not necessarily inferior because there is some limited empirical support for many of the various models listed above (Davidge & Forman, 1988; Litten &

Allen, 1991). There is, however, still no approach that has been clearly empirically demonstrated to be the treatment of choice for substance abusers (Jacobson, Holtzworth-Munroe, & Schmaling, 1989).

Concurrently, the practice of family systems treatment of addictions (which includes couples' therapy) has been gaining recognition. As early as 1974 marital and family treatment approaches were referred to by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) as "one of the most outstanding current advances in the area of psychotherapy of alcoholism" (Keller, 1974, p. 116). Four years later, Coleman and Davis (1978) completed a national survey that found 93% of drug treatment facilities indicating family therapy as a treatment of choice.

Unfortunately, systemic family therapy as a discipline has been somewhat reluctant to apply its model to the treatment of addictions, and the actual provision of systemic therapy in treatment facilities has not been extensive (Regan, Connors, O'Farrell, & Jones, 1983; French, 1987; Salinas, O'Farrell, Jones, & Cutter, 1991). Systemic therapists have exhibited such problems as a pervasive lack of awareness of the scope of the addictions, poor diagnostic skills regarding substance abuse and deeming abuse to be caused by individual or medical difficulties (Steinglass, Bennett, Wolin, & Reiss, 1987). The last factor noted above is especially disheartening

because research on the role of the family in the etiology and progression of addiction has gained more acceptance among professionals in the field of substance abuse (Kaufman & Pattison, 1983). Another factor in creating the gap between theory and practice has been the lack of systemically trained therapists in the addictions field (Steinglass, 1976). Thus, a more general awareness as to the possible impact systemic treatment may have with addicts and their relatives is still needed, a deficit which this review will attempt to address.

Besides bridging theory and practice, the writers who have focused on applying systemic treatment to substance abusers are part of a recent discipline-wide trend. Nichols and Schwartz (1991) have stated that "there is little information available on the effectiveness of family therapy when working with specific presenting problems and populations" (p. 170). The current need, then, is to specify treatment techniques for specific populations and family dysfunctions. The systemically focused outcome studies prior to this emerging trend have been positive, which parallels the results of other models of therapy (Gurman & Kniskern, 1981; Dewitt, 1978). The systems approach can also be said to be at least as effective as other therapies, and even more effective than individual therapy in dealing with marital problems and "very

difficult populations" (Nichols & Schwartz, 1991, p. 169; Gurman & Kniskern, 1981).

One hindrance to the application of systemic therapy with the addicted population that originates among those who specialize in the field is the split among writers addressing the treatment of alcoholism and drug abuse, respectively. Regarding this split, Kaufman (1985) has stated that "two separate literatures have evolved" with "few attempts to synthesize" them (p. 898). Writers in each field rarely reference one another and frequently focus on two seemingly diverse populations. Those treating alcoholism examine families of middle-age men, while their colleagues investigate families of adolescent drug abusers (Kaufman, 1985). However, Ziegler-Driscoll (1979) noted that the preponderance of adolescent drug abusers have at least one alcoholic parent. One further unifying factor is the increasing use of two or more substances (Kaufman, 1985; Walsh et al., 1991). Thus, the division of the addicted population by choice of substance may soon be a false dichotomy.

This paper will attempt to critically review empirical articles evaluating the efficacy of systemic interventions with both alcoholics and drug addicts. The scope of this review will encompass all articles from 1978 to the present utilizing systemic therapy whether it be marital or family focused.

The format of the review will generally correspond with Prochaska and DiClemente's (1983) outline of the three stages of recovery from addiction. Their position states that stage one of recovery is becoming aware that a problem exists and committing to change by engaging in treatment. The second step is the actual change itself or stopping the abuse of the substance, and the last stage is maintaining the change while readjusting the environment. Kaufman (1986) and O'Farrell's (1989) revision of the last stage to specifically address familial readjustment will be highlighted in this review. Each stage will be examined according to the efficacy and implementation of systemic therapy with substance abusers and their spouses and/or families. Although the research generally supports the efficacy of systems therapy with addicts, the results must be tempered by certain methodological considerations, which will be examined in the following section.

Methodological Considerations

In order to determine the value and utility of any body of research, the empirical quality of the studies must first be examined. The overall methodological concerns of the research evaluating systemic treatment of substance abuse will be addressed in this section.

O'Leary and Turkewitz (1978) and Nathan and Lansky (1978) have detailed the weaknesses of the addiction and

systemic therapy research, respectively. For the most part, the articles evaluated in this paper share these weaknesses. O'Leary and Turkewitz's (1978) approach of examining the various facets of a methods section of a research article will be paralleled in this review. Errors within the research involving subjects, therapists, dependent measures, treatment specification, experimental design, and data analysis and interpretation of results will be covered.

Subjects

The first aspect of a methods section generally details the size, composition and diagnostic criteria for selection of the subjects examined. Weaknesses in the research studies of substance abuse and systemic therapy have been noted in all three areas (O'Leary & Turkewitz, 1978).

Studies of systemic therapy have had particular difficulty with inadequate sample size (O'Leary & Turkewitz, 1978; Jacobson et al., 1989). Methodologically, this is a concern because small samples lead to greater probability of error variance and limit the statistical power to find differences between groups. The generalizability of studies with small samples can also become questionable because of the usual number of drop-outs in psychotherapy research (Emrick & Hansen, 1983).

Samples in systemic therapy and addiction research also tend to be of a demographically narrow composition or fail to sufficiently detail subject characteristics, thus limiting generalizability (O'Leary & Turkewitz, 1978; Emrick & Hansen, 1983). Generally, the subjects are lower class, Caucasian, males and young. Many studies simply do not adequately specify subject characteristics (Kaufman, 1985; Collins, 1990; Davidge & Forman, 1988). Information such as socioeconomic status, race, education, employment status, other therapeutic experience, referral source, and family composition have all been neglected to some extent, but need to be included in any study.

Subject selection implies the criteria for inclusion in a research study. Nathan and Lansky (1978) and O'Leary and Turkewitz (1978) have noted that addiction and systemic research have, respectively, employed insufficient diagnostic standards in subject selection. Nonspecific definitions of marital and/or family distress and substance abuse limit the generalizability of the results (Emrick & Hansen, 1983). Most studies incorporate some measure of frequency and quantity of use with cut-off scores to determine changes in abuse, but not to initially define who is an abuser. As O'Leary and Turkewitz (1978) have stated, "obtaining a numerical rating of distress from a valid assessment instrument that has normative data provides a description of the sample that can be understood by other

professionals and increases the reliability of the diagnosis" (p. 749). Gathering a measure of the dependent variables before subjects were included in the study would provide a more thorough specification of the subjects.

Therapists

The next section commonly seen in research articles is a description of therapist variables. Weaknesses in the research revolve around therapist characteristics and possible biases.

Problems with therapist characteristics range from no descriptions of treatment providers to unequal therapists per experimental condition (Nathan & Lansky, 1978; O'Leary & Turkewitz, 1978). External validity is negatively impacted if the therapists' experience, education, gender, and age is unknown. Concurrently, allowing therapists with nonequivalent experience in (or commitment to) the treatment approach confounds internal validity.

Another problem involving the therapists in the research articles reviewed here relates to bias of the experimenter. Bias may occur anywhere between the planning of the study and the follow-up (O'Leary & Turkewitz, 1978; Emrick & Hansen, 1983). In the latter case, Emrick and Hansen (1983) have suggested that evaluators familiar with the treatment, but "neutral with respect to the results" conduct the follow-up, something which is rarely done (p. 1083). In the former example of bias, research authors who

also administer the experimental treatment expose themselves to questions of inappropriate motivation or emotional investment in the rejection of the null hypothesis. Unfortunately, both situations noted above are rather prevalent occurrences (O'Leary & Turkewitz, 1978).

Dependent Measures

Another frequent error found within the literature involves the absence of multiple dependent measures (Collins, 1990; Davidge & Forman, 1988; Jacobson et al., 1989). Outcome measures too often rely on the self-report of the abuser or identified patient. Dependent measures are also limited in scope to detecting changes in substance abuse or family functioning and neglect other aspects of an addict's improvement (Nathan & Lansky, 1978; O'Leary & Turkewitz, 1978).

The measures that are generally used to determine substance abuse or family functioning are quite good statistically (Buros, 1978; Mitchell, 1985), but some objective verification or measure beyond that of the referred subject is needed (Emrick & Hansen, 1983). Otherwise, social desirability could account for some results and confound the study. Frequent attempts to alter this weakness in the addictions field include urinalysis, DWI's, blood samples and input from family members (Nathan & Lansky, 1978). The Revealed Difference Technique, the Marital Interaction Coding System and the Beavers

Timberlawn Family Assessment Guide are observational assessments that systemic researchers have used to broaden their pool of outcome measures (Kaufman, 1985).

Since treatment goals are expanding beyond addictive behavior and family functioning and many variables impact substance abuse and treatment, an increased variety of factors need to be assessed (Anderson & Nutter, 1975; O'Leary & Turkewitz, 1978). Employment status, social contact and functioning, emotional difficulties or individual pathology, physical health and life stressors all need to be included in studies in order to comprehensively examine treatment effects (Emrick & Hansen, 1983).

Treatment Specifications

Along with the dependent measures, the independent variables are replete with methodological errors. Research articles tend to lack the necessary specification and equality of treatment that is required of ideal empirical standards (O'Leary & Turkewitz, 1978; Davidge & Forman, 1988).

Systemic therapy treatment techniques are specified in a particularly weak manner (Gurman & Kniskern, 1981; Collins, 1990). Assumptions are made by the writers that the treatment utilized is thoroughly known without any further explanation needed beyond the name of the approach. However, what is theorized and what is actually done may be

two different things (Gurman & Kniskern, 1981). Kaufman (1985) has also noted the "cross-fertilization" of systemic methods so that authors claiming the same treatment may in fact be implementing two different techniques (p. 911). Specifying the therapeutic goals and particular techniques or approaches is necessary to correct the current situation.

Different treatments or conditions within studies frequently are inequitable as well (Nathan & Lansky, 1978; O'Leary & Turkewitz, 1978). Each condition needs to implement equivalent numbers of hours of intervention, intervals between treatment sessions, and scope of issues addressed in treatment (Nathan & Lansky, 1978). The last factor would be exemplified by one condition attempting to alter social functioning and frequency of substance use, with the comparison condition only addressing the addictive behavior. Utilizing two treatments in one experimental condition, which confounds internal validity, would also be an example of inequitable treatment (Ingram & Salzberg, 1988).

Experimental Designs

Internal as well as external validity may be negatively impacted by the experimental design of a research project. Two specific ways this problem has occurred in the research currently being examined are: 1) the use of inadequate comparison groups, and 2) deficient follow-up periods

(Nathan & Lansky, 1978). One strength of the research, the randomization of subjects, is also noted in this section.

Comparison groups in research articles have been inadequate for several reasons. The first is when no comparison is made with the experimental condition, which limits the ability to attribute causality to the treatment itself (Cook & Campbell, 1979). Clearly, some comparison needs to be made with the experimental condition. However, there are some ethical considerations that would limit the use of placebo control groups with substance abusing clients (Gurman & Kniskern, 1981; Aradi & Piercy, 1985). Many comparison groups thus receive some other form of treatment. The comparison sample has sometimes received additional systemic therapy which confounds the results by destroying the uniqueness of the treatments and thus any causality that may have been present (Bennun, 1988; Friedman, 1989).

Another weakness with the experimental designs of the research is that the length of follow-up outcome assessment is too brief (O'Leary & Turkewitz, 1978; Collins, 1990). Studies examined in this paper used follow-up assessments that averaged between 6 months and a year post-therapy, which may be too short a time to conclusively state the lasting effects of treatment (Nathan & Lansky, 1978). An added benefit to longer follow-ups is that more data may be provided regarding which patients improve over time and

which ones exhibit a deterioration in functioning in relation to their treatment outcomes immediately after therapy (Moos, Cronkite, & Finney, 1982). The length of follow-up does depend on the question to be evaluated by the research, however. Since longer follow-ups are necessarily mediated by post-treatment variables, a study examining the short-term benefits of substance abuse treatment may not require a two year follow-up (Nathan & Lansky, 1978; Emrick & Hansen, 1983). There are a few studies which did no follow-up at all (Lewis, Piercy, Sprenkle, & Trepper, 1990; Sisson & Azrin, 1986), thereby severely hindering the ability to make any strong conclusions on the efficacy of their approach.

One strength of design noted by this author is the frequency of utilizing random assignment of subjects to conditions. Random assignment of subjects decreases the threat to internal validity and strengthens the causal relationship found in a study (Cook & Campbell, 1979). Random selection among substance abusers is somewhat restricted, however, due to the strict qualifications of inclusion in the studies.

Data Analysis and Interpretation of Results

The last area of errors to be discussed includes the analysis and the interpretation of the data from the research. General errors noted in this area include failure to recognize and differentiate statistical and

clinical significance and the deficiency in accounting for treatment drop-outs and patients lost in follow-up (Nathan & Lansky, 1978; O'Leary & Turkewitz, 1978).

Statistically significant differences are the hallmark of any psychological research. However, significant differences on analysis of variance between groups may not mean very much on a more practical level. Nathan and Lansky (1978) encourage a more clinically relevant approach to understanding research results. Such an approach includes waiting to support the efficacy of a treatment until replication with varying conditions, therapists and populations is completed. It also entails examining the number and percentage of treatment condition group members improving compared to another group before making conclusions regarding the efficacy of a therapy approach (Nathan & Lansky, 1978).

Any therapeutic approach to treating substance abuse must address those who drop out prematurely from therapy (Nathan & Lanksy, 1978). Premature termination rates can soar as high as 75% in some studies (Armor, Polich, & Stambul, 1976). Subject attrition has also been a problem for systemic researchers (O'Leary & Turkewitz, 1978). Unfortunately, many researchers do not include drop-outs in their results, which limits the knowledge about who such subjects are and why they did not complete therapy (O'Leary & Turkewitz, 1978). Inflated improvement rates may also

result from not including subjects who terminated therapy early since such subjects tend to do worse regardless of the type of treatment received (Emrick, 1975). It has been reasoned that patients lost in follow-up may also do poorly in responding to treatment (Emrick & Hansen, 1983). Thus, the strength of any results from studies neglecting to count drop-outs or patients lost to follow-up in their statistical analysis is necessarily limited (Emrick & Hansen, 1983). More studies that include drop-outs and subjects lost to follow-up may result in more accurate and helpful conclusions, which is encouraged.

Clearly, for each aspect of methodology, there are many weaknesses within the literature as a whole, some of which are more serious than others. The impact of the methodological considerations detailed above on the results of the literature will be discussed in the next section.

Review of Empirical Research

While systemic researchers have produced studies fraught with methodological weaknesses, certain conclusions regarding the use of systemic therapy with substance abuse may be made. The results, as well as the merits and weaknesses, of each article dealing with systemic approaches in the treatment of substance abuse will be addressed here.

The last in-depth and comprehensive review of systemic therapy and substance abuse that was attempted was Janzen's (1977) examination of family therapy and alcoholism. Each of the studies done since Janzen's 1977 review breaks out into one of three main foci. The three foci of the research also correlate with Prochaska and DiClemente's (1983) outline of three stages of recovery from addiction. The first stage of recovery and area of attention from researchers is creating awareness in the addict and family system that a problem exists and then engaging them in therapy to promote change. The second stage and focus of studies is stopping the addictive behavior, specifically through the implementation of systemic therapy. The last stage and area of research pertinent to this review is maintaining the individual's recovery from addiction while improving the addict's interpersonal environment. Kaufman (1986) and O'Farrell (1989) have specified "interpersonal environment" to mean improving the marital and/or family functioning of the addict. The findings of the studies have implications for future treatment of substance abusers and their families as well as future research efforts.

Stage One: Systemic Interventions and Engaging and Retaining the Addict in Therapy

The first area that the research effort has concentrated on is studying the impact of systemic interventions on the engagement of addicts and their families in therapy. Both

the systemic impact on initial presentation for treatment and the maintenance of therapeutic contact has been studied and will be reviewed here. The research has also detailed patient and family characteristics that seem to correspond to engagement in treatment and remaining in therapy.

Engaging clients into therapy can be as difficult as treatment itself, especially with a substance abusing population. Gurman and Kniskern (1981) have noted that engaging families can be especially problematic since more people are involved. However, participation in treatment is a necessary precursor for improvement. Stanton and Todd (1982) found that families with addicts abdicated responsibility for seeking help to the addict and did not see any need to present for treatment. However, alcoholics' abstinence rates can be positively impacted just by having spouses observe compliance with a behavioral contract to take Antabuse (Azrin, Sisson, Meyers, & Godley, 1982), so the possibilities of change resulting from more direct and active participation by family members in therapy is compelling. One immediate and positive change that is possible is increased awareness by abusers that they are addicted to a substance and need treatment. Also, Bergin and Garfield (1978) have noted more positive outcomes with greater retention. In other words, the longer people present for treatment before prematurely dropping-out, the more they benefit from therapy. Methods

for improving ways to engage whole families into treatment and/or reduce the likelihood that they drop out have been examined by several studies.

Engagement of addicts in treatment

Three articles have examined systemic attempts to engage addicts into treatment. One studied the effects of reinforcement training of spouses on the engaging of alcoholics in treatment (Sisson & Azrin, 1986). Twelve women relatives of male alcoholics were taught skills and techniques to lessen their distress, decrease the drinking of the relative, heighten his motivation to begin treatment and help in the treatment program. Random assignment to a traditional educational group with Al-Anon meetings was also done. They found that the experimental group had more alcoholics present for treatment ($p<.02$) and decreased both the amount and frequency of alcohol intake before treatment began and after it started ($p<.001$). None of the subjects in the traditional approach changed while six of seven in the new training group improved significantly. A unique limitation to this study is the fact that reinforcement training had twice as many sessions (averaging seven to three and a half) as the traditional educational group, thus providing unequal treatment.

Liepman, Nirenberg, and Begin (1989) also evaluated an approach using an alcoholic's family to encourage the abuser to seek treatment. This was a quasi-experimental

design using a confrontational intervention (Johnson, 1980; Treadway, 1989) and an educational, nonconfrontive style. The alcoholics who were confronted were significantly more likely to attend treatment rehabilitation, detoxification or Alcoholics Anonymous than those who were not ($p<.001$). They also tended to stay abstinent longer ($p<.01$). The authors hypothesized that the concentrated expression of the family members' concerns and feelings versus the usual sporadic and nonconstructive feedback was an important factor in the difference. A significant within group difference was found for the confrontational intervention condition. The alcoholics who were actually confronted tended to be younger than those who were not confronted. The former group had a mean average age of 38, while the latter sample averaged 50 years of age.

Szapocznik et al. (1988) examined the effects of systemic interventions on engagement of addicts into treatment and reducing the number of drop-outs once treatment had begun. They randomly assigned 108 Hispanic adolescents who used drugs (primarily marijuana) to a strategic-structural engagement condition or a standard treatment group. The experimental condition was a combination of a brief strategic family therapy model focused on a specific symptom and utilizing structural principles such as joining the family system and restructuring the interactional patterns of the family

members. The experimental group was engaged 93% of the time compared to 42% for the controls. The percentages of those completing treatment also were significantly different: 77% in the former and 25% in the latter ($p<.001$). However, only one therapist treated both conditions because the other was sick, and even though another psychologist supervised, some confounding under such conditions may be inevitable. Basically, in the experimental approach, the therapist took more responsibility for engaging the family and made numerous contacts with various family members to restructure interactions. These familial interactions had previously prevented family members from beginning treatment and had led to premature termination.

Each of the three studies mentioned above showed positive therapy engagement rates by addicts through the incorporation of familial involvement. Limitations shared by both Sisson and Azrin (1986) and Liepman et al. (1989) include small samples and strict reliance on just a relative's report of the drinking behavior of the alcoholic. Definitions of the comparison group were also rather poor for each of the articles.

Retention of addicts in treatment

Two studies specifically focus on limiting premature termination from therapy by implementing systemic interventions. Weidman (1987) was interested in

correlating increased family involvement with reductions in premature termination rates in the residential treatment of chemically dependent teenagers. One treatment facility added structural family therapy and an overall systemic view of treatment among the staff, while an equivalent site made no changes. The percentage of drop-outs significantly decreased ($p<.05$) for the experimental site. The number of families seen during the first month increased ($p<.01$) and the drop-outs were found to have had more no shows ($p<.01$). The family's motivation was heightened by making treatment contingent on receiving family therapy. One explanation for the results is that as the family's responsibility for the improvement of the addict increased, they became more invested in the identified patient's treatment. One specific limitation regarding Weidman's (1987) article was the vague criteria for subject selection. Subjects simply had to volunteer, use drugs, and have marked interference with various facets of functioning. Generalizability is thus limited.

The second examination of systemic interventions decreasing the number of drop-outs was done by Zweben, Pearlman, and Li (1983). A short-term, communication-based conjoint therapy approach was compared to an individual therapy approach with a sample of married alcoholics. A significantly greater percentage of members of the conjoint therapy approach completed treatment than did alcoholics in

individual therapy. Education as to how conjoint therapy can facilitate the marital relationship and how interaction is negatively affected by the alcoholic's drinking was a major part of the conjoint therapy. A significant within group difference was found in the conjoint therapy condition regarding social stability. Those couples in which the alcoholic was regularly employed and had regular contact with their extended family remained in therapy at a significantly higher rate than did those who were not employed or failed to keep in touch with their relatives.

These last two articles, as well as Szapocznik et al. (1988), highlight the reduction of attrition from therapy by including family members early in treatment. Problems with Weidman's (1987) and Zweben et al.'s (1983) studies include using incomplete diagnostic criteria in the initial subject selection. Both experimental and comparison group treatment techniques were poorly described as well.

While Liepman et al. (1989) and Zweben et al. (1983) briefly noted patient characteristics significantly related to engagement and attendance, two studies specifically tried to determine which addicts and couples were more likely to engage and remain in treatment. Noel, McCrady, Stout, and Fisher-Nelson (1987) studied 105 married couples with one alcoholic member in an outpatient setting. They found that treatment refusers were more likely to be younger (with a mean age in the early 30's) than those

treated, less likely to have personally initiated treatment, and had less of a drinking history ($p<.03$). Drop-outs were less likely than those completing treatment to have made their own initial contact with the program, not as likely to be employed full-time and more likely to have depressive symptoms not associated with alcohol use ($p<.03$). In the couples who were treated, the alcoholic's spouse was initially satisfied with the marriage, but had become increasingly discontented ($p<.03$).

O'Farrell, Kleinke, Thompson, and Cutter (1986) also studied differences in couples with an alcoholic accepting treatment versus couples with an alcoholic rejecting treatment. Husbands accepting outpatient treatment were more educated, had better marital adjustment, worked full-time, had more alcohol related arrests and had sought more outpatient help than the alcoholics who had rejected help. The wives in couples who had rejected outpatient therapy had better marital adjustment and their husbands had a history of more alcohol related hospitalizations. These couples also lived further away from the clinic. All differences were at the $p<.004$ level. No significant difference was found on the severity of drinking. Besides the demographic differences between the two groups noted above, the authors noted that one hypothesis for the differences in retention rates is that hospital treatment

is more passive and the subjects were recipients, while in outpatient therapy the client must take a more active role.

Noel et al. (1987) and O'Farrell et al. (1986) completed two of the more empirically sound studies in the research examined for this review. However, each was restricted by limiting the scope of the substance abused to alcohol and only including male addicts. Neglecting to provide certain demographic data about the subjects such as race and length of marriage also weakens generalizability. General characteristics that typify alcoholics accepting systemic therapy include being employed, having at least a high school education, lacking serious psychopathology, having a longer drinking history and being around 40 years old. Wives of treatment acceptors tend to be less satisfied with the marriage than are their husbands, while wives rejecting therapy tend to have better marital adjustment. One reason for this could be that the wives accepting treatment are less codependent or invested in their husbands' addiction than are the wives who do not present for therapy. The former wives could also have the necessary ego strength or motivation to challenge the familial homeostasis. Taking responsibility for one's own treatment by self-referring or being involved in more active, personal therapy also typifies abusers motivated for change.

In summary, providing some kind of specific intervention or training for family members seems to aid addicts in

entering into treatment and seeking change. Various levels of therapist and familial involvement have been used with no comparison as of yet among the different styles of intervention. It does appear that whatever specific systemic approach is used, the therapist can increase the chances of engagement by making presentation for treatment a goal to be directly addressed with family members before the addict actually presents. Early involvement of family members is contrasted with the more traditional approach of waiting for the addict to "hit bottom" and self-refer. Basically, the power and intensity of familial interactions are utilized to motivate the addict into treatment. Then, as the family becomes more invested in therapy and makes concurrent changes, early termination becomes less likely.

Stage Two: Systemic Treatment of Substance Abuse

Once the addict and family have presented for therapy, the focus then turns to treating the substance abuse. Articles researching the effect of systemic interventions on decreasing substance abuse will be examined here.

Prochaska and DiClemente's (1983) second stage of recovery is the cessation of addictive behavior and decrease of abuse on the part of the addict. Several articles have limited their focus to the effect of either marital or family therapy during this stage of recovery. Although marital and family therapy use similar theoretical underpinnings, each has generally focused on different

populations of addicts. Research utilizing marital therapy has primarily focused on middle age alcoholics, while younger drug addicts and their relatives have been treated with family therapy. Each approach will be explored individually, then commonalties will be discussed.

The rationale for using either marital or family therapy with addicts relates to the paradox of the addiction-related interactional patterns among family members. It is fairly clear now that relationships between addicts and their extended family members (parents, siblings, spouses and children) are negatively impacted by substance abuse. A high preponderance of negative interactions, divorce, separation, spouse/child abuse and general familial discord may result from one family member abusing a substance (O'Farrell & Birchler, 1987). However, interactions with relatives may also serve to maintain abuse (Davis, Berenson, Steinglass, & Davis, 1974). Finally, while familial conflicts may prompt renewed abuse by an addict in recovery, positive marital and family interactions are associated with better substance abuse treatment outcomes (Finney, Moos & Mewborn, 1980; Maisto, O'Farrell, McKay, Connors, & Pelcovits, 1988). Since addicts both affect and are impacted by the relationships with their families and systems therapy seeks to address such interactions, it seems reasonable that family systems

treatment could greatly expand the breadth of change beyond just the addict.

Marital therapy approaches

The marital therapy approaches to be examined below have focused specifically on highlighting and changing the interactions between spouses regarding substance abuse in order to decrease the abuse, rather than just focusing on the substance abusers and their addiction. Certainly reducing addictive behavior is the first priority, but marital therapy uses the communication and structure of the marital subsystem to effect the change. The comparison of various levels of spousal involvement in the treatment of alcoholism has been tested by two systemic approaches.

The first systemically-oriented approach compared: 1) Joint hospitalization of the addict and spouse with couples' therapy, 2) outpatient couples' therapy, and 3) individual therapy (McCrady, Paolino, Longabaugh, & Rossi, 1979). Thirty-three couples were randomly assigned to the three conditions, treated, then assessed after 6 months. Conditions with spousal involvement had significant decreases in quantity and frequency of drinking. However, the percentages of addicts abstaining or moderately drinking were above 80% for each condition. The three groups also had equally significant decreases in psychological distress, and alcohol impairment, so all three interventions were somewhat efficacious.

Improvements in the study could have been made by better defining the therapist variables and treatment conditions.

Decreasing substance abuse levels was also the focus of McCrady et al.'s (1986) study which compared three types of outpatient behavioral marital treatment of alcoholics and their spouses. The first (n=21) allowed the spouse to basically observe and be supportive and the second (n=13) taught them skills to relate with the alcoholic in order to reinforce abstinence. The third (n=19) focused on marital interactions and the relationship as well as skills to respond effectively to alcohol-related situations. After a 6 month follow-up, each condition had decreased drinking levels and increased life satisfaction ($p<.01$), but the third group decreased drinking at a faster rate and took longer to relapse; they also better maintained their marital satisfaction. Focusing on the marital interaction and alcohol-related interactions would seem to be more cost effective as it reduces abuse rates faster and the reduction lasts longer.

As with the previous study (McCrady et al., 1979), there was no information on the therapists of the treatment groups (McCrady et al., 1986). However, there were vast improvements in the definitions of the conditions. The statistical analysis was very thorough, much more so than the McCrady et al. (1979) study.

In general, using various systemic marital therapy modalities with substance abusers and their spouses is effective in decreasing addictive behaviors. Comparisons of systemic marital therapy with individual treatment have shown the former approach to be as effective as the latter in reducing alcoholism. Unfortunately, due to the incredibly sparse number of studies, drawing firm conclusions as to the comparative efficacy of various systemic marital therapies would be premature at this point. More distinct explanations of the therapeutic approach also need to be made in order to ensure the equality of conditions. Systemic marital researchers would do well to model the clarity of treatment definition of McCrady et al. (1986), whose study demonstrated more convincingly how addictive behavior is positively impacted by increasing levels of spousal involvement in treatment.

Finally, the behavioral marital therapy approach (McCrady et al., 1986) highlighted the significant treatment advantage of addressing the addiction-related communication of the couple, not just the addictive behavior of the substance abuser. By using such a dual focus, reductions in substance abuse are made more rapidly and deterioration of therapeutic effects are slower. Whether or not another systemic approach would find similar results is unknown, but needs to be studied.

One area of controversy highlighted by the two studies reviewed above is the need for further development of various outcome measures of addiction treatment effectiveness. Some studies require abstinence as the only acceptable outcome, while others measure reductions in the quantity, duration, and frequency of substance abuse. Frequently, the goal of treatment may be abstinence, but decreasing levels of use is regarded as a positive change, especially if the reduction is significant enough to also lessen interpersonal conflict and legal or employment difficulties (Emrick, 1982). Controlled usage is also seen as an end in itself, particularly by European practitioners (Fisher & Griffiths, 1990; Bennun, 1988). An approach which includes both abstinence and controlled usage as positive consequences of treatment mirrors the variety of actual outcomes of addicts post-treatment to a greater extent (Emrick, 1974). Therefore, as in real life, the scope of change in addictive behavior is fairly broad in outcome studies.

Family therapy approaches

Family therapy approaches are more varied than the marital therapy approaches in both substance of choice used by the addict and specific family modality employed. Five studies of highly diverse quality have been completed in this area.

Fisher and Griffiths (1990) used structural-strategic therapy with 36 alcoholics and drug users, but did not have

a control group. They found that 18 of 20 pure alcoholics and eight of nine drug users were abstinent or no longer problem users after a six month follow-up. Of the 5 subjects who used both, none were problem drinking and four of the five were drug free. Treatment was short-term, 20 sessions, and fairly well defined. The therapy employed was similar to Szapocznik et al.'s (1988) general approach of combining the symptom-focused techniques of strategic therapy with the goal of restructuring the interactional patterns of the family. Having a sample of addicts using both drugs and alcohol is unfortunately rare, but corresponds with the preponderance of polysubstance abuse. Difficulties with this study are quite striking, though. The causative factors for the positive results are unknown due to the lack of a control group. Also, the clients were very motivated and strictly limited by a panel which selected those appropriate and consenting. Finally, there were no therapist variables made available.

Kang et al. (1991) had less positive results than Fisher and Griffiths (1990) in their comparison of weekly interventions consisting of: 1) psychosocial, 2) family, and 3) group therapy. They randomly assigned 168 cocaine abusers to the three conditions and were able to follow up on 122 subjects after 6 to 12 months. No differences were found in the treatment approaches with all three being ineffective in decreasing drug usage beyond spontaneous

remission. One significant finding was that the 23 subjects who did remain abstinent accounted for almost all of the improvement in psychological functioning recorded by the entire subject pool, supporting the goal of abstinence.

The aforementioned study (Kang et al., 1991) is one of the most problematic studies in the literature. There were absolutely no definitions or explanation of the treatment approaches, severely limiting both internal and external validity. Only one-quarter of the subjects attended more than six sessions of admittedly non-intensive treatment, which actually bordered on almost no therapeutic impact. Confining the outcome measure to abstinence also limited the results as days of drug use did decrease for the experimental group. Unfortunately, no specific results of changes in drug abuse were available for the two comparison groups.

A much more intensive form of therapy was used by Stanton and Todd (1982), which appears to be the most thorough and sound study to date in this field. They established four treatment conditions, then randomly assigned 118 male heroin addicts and their families to the various conditions. The conditions were: 1) non-family treatment (methadone and individual therapy, n=53), 2) paid family movie treatment in which the families watched popular movies together (n=19), 3) unpaid family therapy (n=25), and 4) paid family therapy (n=21). Their goal was

to stop drug dependency first, with any other improvements secondary, although positive benefits were discussed and theorized.

In this study, Stanton and Todd (1982) first clearly defined and instituted the structural-strategic approach which was used in this study and has since been tested by other articles reviewed in this paper. Minuchin and Fishman's (1981) structural approach is used as an overall model with the specific techniques of joining, accommodating, unbalancing and having the family enact new patterns of interacting. The strategic influence (Haley, 1976) is seen in the specified goals and plan of treatment, emphasis on change in the symptom and homework assignments. Treatment is designed as short-term and goal directed, although the goal is very broad.

Stanton and Todd (1982) found that, after a 1-year follow-up, the paid family therapy was most effective on increasing the number of days free from drug usage ($p<.05$) for all illegal drugs except marijuana. There was a decreasing effectiveness going down from the unpaid family therapy to the non-family therapy. The frequency of alcohol consumption and work/school attendance was not significantly altered in any of the conditions. Paid family treatment also had the most steady improvement over time. While addicts in the other three conditions decreased their days of usage over the last six months,

they were still using drugs more often than addicts in the paid family therapy group ($p<.05$). The two family therapy conditions were compared with the non-family therapy conditions and the former was significantly better ($p<.05$). Finally, non-family treatment subjects died at a higher rate ($p<.05$). Regarding the issue of paying clients, Stanton and Todd (1982) defend such a policy as cost-effective for society since it helps with motivation and produces improvements before the addict needs more cost intensive treatment.

The definitions were excellent throughout the Stanton and Todd (1982) article, except for the absence of data on the amount of drug abuse for subjects before treatment. Another possible weakness is the lack of any outcome measure assessing quantity of substance use over time. Thus, binge users would show no improvement or vast improvement, depending on when the sample was taken. One positive benefit of their Levels of Success measurement was the inclusion of subjects who died or were incarcerated in the statistical analysis.

Romijn, Platt, and Schippers (1990) attempted to replicate Stanton and Todd's (1982) study. They achieved positive outcome results similar to Stanton and Todd (1982) using structural-strategic family therapy with heroin addicts. However, no statistically significant differences were found between the family therapy and control groups.

There were clinical differences that appeared to be worth noting, however. Specifically, 75% percent of addicts in the experimental group abstained from illegal nonopiates, while 62% did so in the control group. The percentages of those abstaining from heroin differed even more with 65% of the former group stopping use compared to 45% of the latter condition.

One main reason for the lack of statistical significance may be the fact that Romijn et al. (1990) may not have come close enough to replicating Stanton and Todd's (1982) study. Instead of four conditions, there were only two, family therapy (unpaid) and an individual methadone group. The methadone treatment was more effective in Romijn et al.'s (1990) study than in Stanton and Todd's (1982) study, but the actual program was never adequately explained. The families were seen disjointedly in therapy as well; sometimes the family presented without the abuser, while at other times the addict was seen individually. The family therapists were much less experienced in Romijn et al.'s (1990) study, thus possibly decreasing their effectiveness. Finally, different outcome measures were used by Romijn et al. (1990). Abstinence rates were measured instead of the levels of success and number of days using substances that Stanton and Todd (1982) used.

One positive aspect Romijn et al. (1990) examined that the other studies did not was typology of addicts

benefiting from family therapy. They noted that those who profited most were younger, more educated, used less heroin per use, had used heroin for a shorter amount of time, used less alcohol and engaged less with drug-abusing friends.

A comparison of two different family therapies was done by Bennun (1988). He compared a system-focused, Milan intervention (Pallazzoli, Boscolo, Cecchin, & Prata, 1978) with a symptom-focused (D'Zurilla & Goldfried, 1971) approach. Twelve families with an alcoholic family member were randomly assigned to the two treatments and assessed after a 6 month follow-up. The two groups did not differ significantly at the outset on marital/family satisfaction or alcohol dependency. Both groups significantly decreased dependence on alcohol ($p<.01$).

The therapist attributes and treatment conditions were clearly defined, but sessions only occurred every three weeks, making therapy less intensive. Individual sessions were also given to some subjects, which seriously confounds internal validity.

Lewis, Piercy, Sprenkle, and Trepper (1990) authored the final article examined in this section. Two different brief family-oriented interventions were compared. One was Purdue Brief Family Therapy (PBFT) and the other was a cognitive-educational family group utilizing the Training in Parenting Skills (TIPS) program. The Purdue Brief Family Therapy mixes structural, strategic, behavioral and

functional theory and techniques in order to redefine the drug addiction as a family problem, reinforce the parental subsystem, assess the interpersonal function of the addiction and change the dysfunctional interactional patterns in the family. Family therapy was found to be a more effective treatment than the educational group. The former treatment accounted for a greater percentage of those still abstinent than the educational group ($p<.01$). The percentage of addicts who maintained their abuse of other illegal drugs besides marijuana was smaller in the former treatment condition (22% compared to 37%). More of the subjects in the PBFT group were abstinent as well (44% to 25%).

The statistical analysis done in Lewis et al. (1990) was relatively weak. Their use of clinical significance (Jacobson & Follette, 1985) was well done, but no attempt to incorporate statistical significance was attempted. The measures themselves were appropriate and broad; however, only the substance abuse indicators were reported. None of the familial changes or measures were included in the study, which limits the empirical knowledge of the potential of PBFT.

In summary, employing family therapy with addicts appears to be effective in reducing the quantity and frequency of use of a variety of substances as well as increasing abstinence rates. Structural-strategic family

therapy in particular is as effective as individual methadone treatment for heroin users. Therefore, family therapy appears to be one of the many viable treatment options for recovery from an addiction. However, in order to strengthen the efficacy of using systemic interventions with addicts and their families, further replication of studies and more empirically sophisticated studies are needed. For example, explanations of treatment conditions and criteria for subject selection must be improved to strengthen the results of systemic therapy with addicts and their families. More comparisons of various types of family therapy also need to be done so finer discriminations regarding matching clients with a therapeutic modality can be made.

Marital and family therapy both appear to be generally effective in treating substance abuse. More articles expanding on the initial findings reported here will help clarify the beneficial aspects of systemic treatment and develop a typology of patient and therapist variables. Presently, addicts who are younger (relative to others abusing the same substance), are more educated and have been using for a shorter amount of time respond better to systemic family treatment, particularly the structural-strategic approach. One important and seemingly effective similarity between family therapy and marital interventions is the combining of the focus of treatment on

substance abuse and the couple's communication regarding the addictive behavior. The articles examined in this section have focused their research on measuring the impact of systemic treatment on reducing the addiction itself. Another group of authors has expanded their focus to include more intensive treatment of the family system and measuring the changes in structure as well as maintenance of recovery from substance abuse.

Stage Three: Systemic Treatment of Substance Abuse and Familial Relationships

In general, the articles reviewed above have shown support for the use of family system interventions in motivating addicts to enter treatment and in reducing the level of addiction. A third group of authors has attempted to address an additional aspect of substance abuse treatment. Articles examining this additional aspect, which corresponds with Prochaska and DiClemente's (1983) third stage of recovery from addiction, will be examined in this section.

The third stage of Prochaska and DiClemente's (1983) model of recovery from addiction has a dual focus. In essence, it is the maintenance of decreased addictive behavior, while improving the abuser's interpersonal environment. The former part of the stage is addressed by studies measuring the impact of treatment on maintaining substance abuse reductions for an appropriate amount of

time. Longer follow-ups, averaging around a year in length, are used by studies in this section (compared to six months for articles in the previous section). Reductions in use for over six months typify Prochaska and DiClemente's (1983) definition of maintenance of recovery.

The latter aspect of stage three, altering the individual's interpersonal environment, is specifically addressed by systemic interventions applied to the family system and marital subsystem. Thus, the improvement in structure or functioning of the marriage or family of the addict is a major goal of treatment for the studies in this section. Not only is substance-related communication addressed in treatment, but more global interactional patterns are altered as well. As with the previous section, the articles utilize and study either marital or family therapy. Therefore, each approach will be examined; then the commonalities will be discussed.

Marital therapy approaches

Marital therapy approaches to treating addicts and their spouses have primarily focused on alcohol as the substance of choice. Two studies which examine the longer term effects of marital treatment on maintaining recovery from alcoholism and improving global relationship factors will be reviewed.

Efforts to improve the alcoholic's interpersonal relationships are really at the foundation of family

systems interventions. The reciprocal nature of the marital relationship and alcoholism is specifically addressed by marital therapy with addicts and their spouses. This reciprocity has been reinforced by several researchers. Steinglass, Tislenko, and Reiss (1985) found that abstinence could be a significant predictor of marital stability.

Besides improving the marriage in order to decrease substance abuse, one major benefit of marital therapy is simply improving the marriage. O'Farrell and Cutter's (1984) goal in treating alcoholics and spouses together is to address marital conflicts that are rarely resolved while one member of the relationship is intoxicated. Substance abuse may create a homeostasis in the marriage whereby such problems are kept from awareness or resolution. The addiction, then, frequently becomes the central organizing principle in the relationship, a situation which marital therapy seeks to adjust (Steinglass et al., 1987). This adjustment in the relationship necessarily creates a certain amount of conflict, but it also resolves fundamental difficulties in the marital subsystem. Thus, directly addressing these conflicted interactional patterns and the role addiction performs in the marital relationship, would broaden the scope of change and increase its longevity (Steinglass et al., 1987; McCrady, 1990).

McCrady, Moreau, Paolino, and Longabaugh (1982) completed the longest and most thorough follow-up in the research. They completed a 4 year follow-up of McCrady et al. (1979) to measure the long-term effects of the systemic interventions implemented. Of the 33 couples in the original study, at least one spouse of each pair was contacted and both were assessed in over half of the cases. As with the original research, there were no significant differences between the three conditions of joint hospitalization, couples treatment and individual therapy in abstinence rates. Abstinence rates dropped from around 80% per condition to a combined total of 33% among all three treatments. The joint hospitalization condition accounted for most of the decline in abstinence rates, however. Those maintaining abstinence or decreased drinking levels were more likely to be older, and married longer than those who relapsed. Changes in marital status were not statistically significant between the three conditions. Unfortunately, more specific measures of the marital subsystem were not utilized. More studies could definitely benefit from utilizing a comparable amount of perseverance and follow-up procedures as those utilized by McCrady et al. (1982), which were adapted from Sobell (1977). Consulting telephone books, employers and the Veterans Administration hospital system are examples of the

techniques used to contact members of the study for follow-up.

The next study reviewed more effectively addresses the attempted change in the marital relationship. O'Farrell, Cutter, and Floyd (1985) compared a behavioral couples therapy group (BMT) with a similarly structured interactional based approach (IMT) and a no-marital-treatment control group. Thirty-four couples were seen for 10 weeks after the husband had completed a 28-day inpatient rehabilitation program. The behavioral and interactional couples noted improvements in the extent of desired relationship change and positive communication when discussing a current marital problem ($p<.01$) as compared to the control group. Both had better marital stability ($p<.05$). All alcoholics showed short-term decreases in drinking ($p<.01$), but the BMT group had fewer alcohol involved days during treatment than the IMT couples ($p<.01$). BMT subjects also had better marital adjustment than the IMT couples ($p<.01$).

O'Farrell et al. (1985) is sound in that the measures used are empirically solid and address many levels of functioning. The treatment definitions of the behavior therapy are excellent. However, the IMT group was weakly defined with no specific articulation of any one family systems theory included. The two conditions also differed in that the BMT treatment added an Antabuse contract and

there was more focus on drinking per se. More contact by the BMT therapist in the form of mid-week phone calls may also have resulted in the significant differences. Thus, the two marital conditions were not equivalent treatments and a bias towards the behavioral condition may have resulted.

Both studies (McCrady et al., 1982; O'Farrell et al., 1985) testing systemic marital therapy approaches are generally positive regarding the use of such interventions in maintaining recovery from alcoholism and in impacting the couples' relationships. Certainly, more research needs to be completed before firm conclusions are made, but family systems therapy can conservatively be said to be at least as effective as individual therapy in maintaining abstinence. It can also be described as more proficiently improving marital adjustment and stability, and positive communication between alcoholics and their spouses. The increase in positive communication is more global in focus, not restricted just to addiction-related interactions.

Family therapy approaches

Family therapy approaches have focused on improving global family functioning as well as addiction-related interactions. The studies reviewed in this section have used a variety of family systems modalities in examining the treatment of families with an adolescent drug addict.

Although adolescents are targeted as the subject group, many of the drug users in the studies and in the addict population are in their 20's. Their families-of-origin are included in therapy because of the principle of pseudo-individuation. Addicts tend to seek differentiation from their families by using drugs; however, they actually tend to contact or live with their parents more frequently than non-users (Crawley, 1971; Cannon, 1976). Their individuation is thus only superficial and a more enmeshed relationship actually exists, especially between the mother and the addict (Mason, 1958; Valliant, 1966). The father tends to be rather distant from the family and exhibits a harsh and inconsistent disciplinary style (Eldred, Brown, & Mahabir, 1974; Lieberman, 1974). Therefore, family therapy seeks to alter the relationships within the family so the addict achieves a more authentic individuation, the parental subsystem is strengthened and the addict is no longer triangulated. At the same time, achieving decreased drug abuse and maintaining recovery from addiction is a complementary goal and measure of success.

One pilot study that examined family systems therapy with drug users and their families was done by Kosten, Hogan, Jalali, Steidl, and Kleber (1986). This study applied multiple family therapy with eight families seen in multiple family therapy groups, but did not employ a comparison condition. The addicts also took methadone.

Improvements noted on the Beavers Timberlawn Family Assessment Guide after a 12 month follow-up included an increase in global family functioning, effective problem-solving, flexibility of family structure and individual autonomy ($p<.05$). The improvements in family structure were notable and correlated with Beavers' model of healthier families having more flexible boundaries (Beavers, 1982). Only one addict relapsed and his was the one family to worsen in functioning. The structural-strategic therapeutic modality defined by Stanton and Todd (1982) was used with some Bowenian ideas of a multi-generational family transmission process being incorporated into the sessions as well.

A more pure form of structural family therapy was examined by Romijn, Platt, Schippers, and Schaap (1992). Eighteen Dutch families with a drug abusing member were treated independently with structural therapy (Minuchin & Fishman, 1981). After an 18 month follow-up seven addicts were abstinent and had increased their social functioning. Parental alliance was strengthened overall as well ($p<.05$). The most successful families had more negative communication between the father and addict and between the mother and father ($p<.01$) at the beginning of therapy, but had changed these interactions to be more supportive and positive by the follow-up ($p<.05$, $p<.01$ respectively). In unsuccessful families, ties between the mother and addict

were strengthened and those between the father and mother weakened ($p<.05$). Thus, the addict is triangulated between the parents as the cross-generational alliances are strengthened and the marital subsystem is further weakened. These results would seem to further support the idea of pseudo-individuation and the benefits of addressing familial structure in treatment, at least among the Dutch population.

Kosten et al. (1986) and Romijn et al. (1992) used excellent definitions of conditions and therapist characteristics. However, the samples were small and self-selected for treatment, which limits generalizability. Conclusions regarding the comparative efficacy of the structural family systems approaches with one or multiple families must be cautiously made because of the lack of a control group in both studies. Generally, though, both structural-strategic multiple family therapy and structural family treatment appear to be effective in decreasing substance abuse and in increasing global family functioning, problem-solving skills, and the strength of the parental alliance. Overly rigid family boundaries were adjusted to be more flexible as well.

Two other studies have also tested structural-strategic therapy (Szapocznik, Kurtines, Foote, Perez-Vidal, & Hervis, 1983, 1986). However, the experimental group was one-person structural-strategic family therapy (OPFT) while

the comparison condition was conjoint family therapy. The goal of OPFT was to change the entire family system by altering one individual member, thus testing the idea of complementarity among family members. Complementarity, as applied to family systems, means that each member of a family has a role to perform and when one person changes, everyone else must adapt to the new role and again achieve homeostasis (Nichols & Schwartz, 1991).

In both studies (Szapocznik et al., 1983, 1986), the two conditions were found to be effective in improving family functioning, in reducing addictive behavior and in maintaining decreased usage. The OPFT condition was significantly better at sustaining these improvements over a year follow-up in the 1986 replication than was the conjoint family therapy ($p<.001$). Besides the other positive therapeutic results, by limiting treatment to one person, engagement problems were kept to a minimum.

The negative aspect of the studies was that OPFT had significantly more sessions, averaging more than eight, compared to between four and seven for the conjoint condition ($p<.05$) (Szapocznik et al., 1983, 1986). No information was available on the subjects who dropped out, which could also skew the results. The outcome measures and premeasure of drug usage were thorough, so subject selection was sound. The sample was unique when compared to other studies in the literature in that only Hispanic

addicts and their families were examined, which affects generalizability. The therapist attributes were defined in depth as well.

The final study examined a different family systems modality from structural-strategic. Friedman (1989) used functional family therapy (Barton & Alexander, 1981) as the experimental condition. Functional family therapy combines the systemic view of familial interactional patterns and behavior as being reciprocal with more behavioral and strategic interventions in order to relabel the behaviors in a positive context (Friedman, 1989; Nichols & Schwartz, 1991). The comparison condition was a group of parents of drug-abusing adolescents who went through a Parent Effectiveness Training-Communication Course, which emphasized Rogerian principles of communication. There were no significant differences among the 135 families in the two groups after a 9 month follow-up. Both had significantly reduced frequency of substance abuse (alcohol and marijuana) by 50%, decreased psychiatric symptomatology on the Brief Symptom Inventory, decreased individual negative behavior and increased positive within family behavior ($p<.05$). Positive communication with the subjects' mother and father also improved ($p<.05$).

The non-significant difference between conditions found by Friedman (1989) could be due to many factors. The first factor is the lack of experience the therapists had in

functional family therapy. Many measures employed by Friedman (1989) are not widely used or empirically strong and only the frequency of use was checked, not the quantity. Finally, subject self-report without verification from other sources was used as the outcome measure, which is somewhat naive for a substance-abusing subject population.

In conclusion, many of the articles examining the use of family therapy with drug addicts and their families have found positive results in the maintenance of decreased substance use and positive impact on familial relationships. The research has demonstrated various family therapies to be fairly effective when studied in isolation and when compared to other treatments. Comparisons between family modalities, however, have yet to clearly delineate one approach as being more efficacious than another. A few of the studies were pilot in nature and did not include a comparison group. Those studies that did include a comparison group failed to provide equitable treatments. Generally, one condition was either more time intensive or had more experienced therapists.

Comparing non-equitable treatments appears to be a consistent weakness of the marital and family therapy approaches. Also, while follow-ups were generally of a year's duration, improvements in studying longer-term maintenance of recovery need to be made by conducting

follow-ups of greater length. Subjects who drop out should be included to a greater degree. However, both marital and family approaches have primarily shown positive results in maintaining decreased abuse and changing familial functioning.

Specific familial changes made through the marital and family therapies used in the research include strengthening parental subsystems, increasing positive communication between family members, loosening rigid familial boundaries, and fostering marital and familial adjustment, stability and satisfaction. Therefore, various systemic marital and family therapies have some empirical support in several areas, including motivating addicts and their families to enter treatment, reducing substance abuse, maintaining recovery and positively impacting family functioning, all of which create certain implications for future research in the field of substance abuse treatment.

Implications for future research and treatment

The articles reviewed in this paper are vast improvements over the previous studies examined by Janzen (1977), both in methodological strength and in propitiousness of results. The implications of these improvements are twofold: 1) future research of systemic therapy with addicts must become more sophisticated if it is to add to the body of knowledge in this area; 2) the treatment options for substance abusers may need to be

modified to take advantage of the benefits of systemic family therapy. These implications will be examined in greater detail in this section.

The trend of continued improvements within the literature must continue with added rigor in order for the knowledge base regarding use of family systems therapy with addicts and their families to increase. Specifically, two things must happen: 1) the methodological sophistication and soundness must improve, and 2) the focus of future research must expand beyond simple efficacy questions. Each item will be discussed in turn.

Specific empirical improvements needed revolve around the methodological considerations mentioned earlier in the paper. Empirically, the ideal study to examine using family systems to treat families with addicts would meet the combined criteria of O'Leary and Turkewitz (1978), Nathan and Lansky (1978), and Emrick and Hansen (1983). Subject pools and sample sizes would be adequate with a broad mix of gender, race, and socioeconomic status, which is necessary to generalize to the substance abusing population. The definitions of the family therapy techniques and comparison treatment conditions should be more precise since replication is difficult when the original techniques are unclear. More equitable treatments would be offered with equally competent therapists. Pre-measures of substance abuse that are quantifiable and rely

on more than abuser self-report would be completed. The follow-up would be of a year's length with all subjects who began treatment included in the statistical analysis. Finally, many of the multi-modal outcome measures that assess family dynamics, frequency and quantity of substance use and individual pathology such as those used by the studies in the previous section would be incorporated to a greater degree.

The other aspect that future research studies need to improve upon is more sophisticated exploration of applying family systems interventions with substance abusers. There are many topics which have yet to be researched in any depth, such as being able to predict treatment outcomes among families with substance abuse problems. Studying therapist and client characteristics which seem to correlate with better outcomes and detailing the heterogeneity of families and abusers would begin to clarify the best conditions for family therapy and perhaps the selection of one family systems modality over another. Use of the Beavers Timberlawn family assessment guide would help the clarification process noted above. One interesting, but wholly neglected aspect of the research is the role of alcohol in healthy families (French, 1987). Replication of some studies done to date would help clarify some of the data gathered, particularly regarding the various family recruitment and treatment techniques.

Finally, a more thorough examination of families with drug abusing adolescents and alcoholic fathers needs to be carried out, as this has obvious treatment implications for the scope of desired change.

Besides clarifying needed methodological improvements, the future treatment of addicts may also be altered by the research examined in this paper. One must always be careful to avoid overstating the implications of a body of research, especially when the studies are still somewhat imprecise and empirically problematic, as is the case with the literature examined above. However, certain treatment issues are raised and improvements can be made in current therapeutic efforts by incorporating the above data into the larger body of knowledge about family systems and substance abuse. Particular issues include the frequency of use of family systems therapy, incorporating systemic interventions in conjunction with other treatments, and the population most likely to benefit from systemic interventions.

As early as 1978, many substance abuse treatment facilities noted the positive advantages of incorporating family therapy with addicts (Coleman & Davis, 1978). Many of these benefits have been demonstrated thus far in the literature. However, the frequency of usage of systemic approaches is not as widespread as it could be in order to take full advantage of the familial relationships in

motivating addicts into treatment, decreasing their usage and altering the interactional patterns to maintain recovery. Salinas, O'Farrell, Jones, and Cutter (1991) found that couples therapy was offered to half the patients in only 39% of in- and outpatient settings sampled. Family therapy was not even available in 33% of the sites and only 10% offered it to half of the patients. Simply increasing the provision of family treatment as an option at the various stages of recovery would be one immediate improvement. The family treatment also needs to be more than including the addict's family members. The therapists providing family treatment need to be trained in family systems therapy and approach treatment systemically.

To date, various individual and group treatment approaches have been extremely popular with addicts. However, family systems therapy has been demonstrated to be effective as well. Seeing the family-of-procreation in treatment seems to work well with alcoholics and their spouses, while family-of-origin therapy is effective with drug addicts as old as 25, even if they are married. Therefore, treating relatively older drug addicts with couples therapy or individually may ignore the pseudo-individuation process. As a result, addicts may remain more attached to their family-of-origin, particularly their mother, which may help to sustain their abuse.

Another positive implication of the research for treatment is the support for concurrent treatment approaches. Many conditions researched used pharmacotherapy or individual sessions with systems therapy. In fact, many of the systemic theorists argue for an integrated approach, and since systemic family therapy appears effective, it may take its place in the overall treatment of addicts by restructuring the entire family system and end the generational cycle of substance abuse (Davis, 1987; Kaufman, 1985, 1986; O'Farrell, 1989; Todd, 1991). Further support for the family systems' place in an integrated treatment approach is its effectiveness in inpatient and outpatient settings. Ideally, an integrated approach would include individual and family therapy, group meetings, and inpatient detoxification if necessary. The cost of such an approach would be prohibitive, however, and deciding when to use which treatment approach is a more realistic option. Thus, there may be situations in which family therapy or another treatment approach may be desirable, but not feasible.

One failure of the literature reviewed here is the lack of clarification of when to use various systemic approaches and when family systems is not indicated. To date, only theoretical suggestions have been made. Szapocznik et al. (1983) suggests using OPFT when the family refuses to come in or one member needs a great deal of strengthening.

Treating only the individual is suggested when the addict self-refers and refuses to allow the therapist to contact the family (Stanton & Todd, 1982). If the addict refuses to present for help, O'Farrell (1989) suggests using family therapy anyway in order to increase the coping skills of the other members of the family. Perhaps by changing the rest of the system, the addict would have to adapt as well and then seek treatment.

Another aspect of deciding upon a treatment approach is determining family and individual characteristics that seem to correspond with positive results from the use of family therapy. Determining such characteristics has been addressed by several of the authors and their results may impact on who receives systemic interventions. In treating addicts and either their spouses or entire families, it appears that age, education, employment, individual psychopathology unrelated to substance abuse, history of use and current marital adjustment are significant variables. When family systems is the main treatment approach, alcoholics who are in their 30's and 40's and drug addicts who are under 25 years old benefit more than other substance abusers of various ages. Addicts who are more likely to start and complete treatment and have better outcomes have graduated from high school, are working at least part-time, have been using for a longer period of time if an alcoholic (but less time if a drug addict), and

experience less individual pathology. Addicts who are seen with their family-of-origin benefit most when they have relatively more family cohesion when entering treatment; however, if couples therapy is utilized, more conflicted marital adjustment seems to predict better engagement and retention rates of the addict and spouse (Liepman et al., 1989; Moos, Bromet, Tsu, & Moos, 1979; Noel et al., 1987; O'Farrell et al., 1986; Romijn et al., 1990; Szapocznik et al., 1983; Zweben et al., 1983). Addicts fitting the above characteristics would appear to have more to lose by continued usage and have more intra- and interpersonal resources to deal with the stress of changing, particularly when their familial relationships are being altered as well. Interestingly, race and gender were not found to impact outcomes.

Treatment facilities may not necessarily limit using family systems to a specific group of addicts. However, understanding who may benefit most from family systems techniques may help clarify treatment approaches. It should be noted that addicts who did not meet the criteria above also significantly improved on a variety of measures (Szapocznik et al., 1983; Bennun, 1988).

Summary and Conclusions

Substance abuse is a widespread problem in America today which negatively affects those abusing substances as well

as their families (Hansen & Engs, 1992; Jones & Houts, 1992; O'Farrell & Birchler, 1987). The purpose of this paper was to critically review articles which examined the use of systemic interventions, specifically marital and family therapy, with addicts and their families.

Family systems is an appropriate treatment modality due to the reciprocal nature of substance abuse and family dynamics. The negative impact on the familial relationships from substance abuse is profound. These same relationship patterns may actually maintain the addiction (Frankenstein et al., 1985), though, since communication between spouses may be "improved" through substance abuse (Jacob & Leonard, 1988). Family systems treatment seeks to address and change these interactional patterns. Certain methodological considerations must be examined before the results can be evaluated.

As is true in all fields of literature, there are certain methodological concerns in the studies examining systemic interventions with persons experiencing substance abuse problems. Many of the weaknesses correspond with Nathan and Lansky's (1978), O'Leary and Turkewitz's (1978), and Emrick and Hansen's (1983) critiques of the methodological considerations of both family systems and substance abuse research.

Methodological considerations of the literature can be found to correspond with a typical methods section of a

research article, which are: subjects, therapists, dependent measures, treatment specification, experimental design, and data analysis and interpretation of results. Each section will be examined in turn.

Three weaknesses of the subject section within the research are: 1) insufficient selection criteria, 2) inadequate subject description, and 3) small sample sizes. Neither the therapist characteristics nor the treatment specifications are clarified adequately in many studies. A concern with the dependent measures of the research is the inconsistent use of multi-modal outcome measures. Experimental design weaknesses include the comparison of inequitable treatments. Finally, data analysis was frequently incomplete due to the fact that drop-outs were not included in the final analysis of results.

The methodological considerations reviewed above are serious, but the quality of the current research has improved over the last review which examined treating addicts with family systems techniques (Janzen, 1977). The literature reviewed in this paper addressed the three aspects of recovery from substance abuse (Prochaska & DiClemente, 1983) which were mentioned earlier.

Researchers examining the effects of systemic interventions during the first stage of recovery (creating awareness and engagement) found positive results in two situations. First, interacting with family members of the

addict in a therapeutic manner before treatment increased the abuser's motivation for therapy and subsequent presentation for help. Secondly, including family members in the beginning stages of treatment increased the retention of addicts in therapy. No comparison of the different levels of therapist and familial involvement or the styles of intervention has been completed yet, so comparative efficacy is unknown at this time. It does appear that whatever specific systemic approach is used, therapists can increase the chances of engagement by making presentation for treatment a goal to be directly addressed with family members before the addict actually presents.

The articles which examined the second stage of recovery (stopping addictive behavior) were targeted at measuring the impact of systemic treatment on reducing the addictive behavior of the substance abuser. Abstinence and controlled usage were frequent treatment goals. Research regarding specific systemic interventions was split between marital therapy with alcoholics and spouse and family treatment of adolescent drug addicts and their families. Both systemic treatments were effective in decreasing substance abuse and were as proficient as individual therapy. One important and seemingly effective similarity between family therapy and marital interventions is the combining of the focus of treatment on substance abuse and

the couple's communication regarding the addictive behavior.

The focus of authors examining the third stage of recovery from addiction (maintaining recovery and improving interpersonal environment) was on attempts to implement positive changes in the addict's family structure as well as to maintain decreased substance use. As with the second stage, marital and family therapy was used with alcoholics and drug addicts, respectively. Both were effective in maintaining recovery from addiction, although no particular systemic modality was clearly superior to any other.

Positive familial changes were also made through the marital and family therapies used in the literature examining the third stage of recovery. These improvements include strengthening parental subsystems, increasing positive communication between family members, loosening rigid familial boundaries, and fostering marital and familial adjustment, stability and satisfaction.

The results of research, then, indicate that addicts and their families were positively impacted in all three stages of recovery. Addicts' motivation for seeking and remaining in treatment can be increased, substance abuse can be decreased and the decrease maintained, and familial patterns of relating can be positively altered through family systemic interventions.

In accordance with the results of the studies noted above, there are many implications for future research and treatment. Future research articles should become more empirically sophisticated. Incorporating a broader range of subjects and improving selection procedures would be a good beginning. Better descriptions of the treatment conditions and providing more equitable therapy are also needed. Finally, employing longer follow-ups, at least a year in length, and including drop-outs in the statistical analysis would improve the methodological errors found in the studies examined in this paper.

Future research also needs to expand the focus of examination currently being employed. Detailing therapist and family characteristics which would respond best to family therapy as well as which systemic approach would be the most effective with various familial characteristics need more attention from researchers. The multi-generational pattern of substance abuse, specifically alcoholic fathers with drug abusing children still needs to be addressed.

Future treatment implications are fairly positive. Providing more opportunities for family systems therapy would be an immediate help. Also, considering treating drug addicts with their family-of-origin might prove to have a wider impact than individual therapy alone. Obviously, if the family of the addict refuses to present

for treatment, individual therapy is recommended. In such a case, one person family therapy (OPFT) appears to be one of many valid treatment modalities. However, any other strict guidelines for treatment selection are empirically unsupported. Integrating systemic interventions with the various approaches in use today would seem to further improve the comprehensiveness and competency of care. In selecting treatment options, it is interesting to note which addicts are more likely to benefit from family systems therapy: alcoholics who are in their 30's and 40's and drug addicts who are under 25 years old seem to respond best. Addicts who have graduated from high school, are working at least part-time, have been using for more time if an alcoholic (but less time if a drug addict) also benefit more from systemic treatment than their peers. Finally, addicts who display less individual pathology with relatively better marital adjustment and family cohesion are more likely to seek therapy, complete treatment, and have better outcomes when family systems is the main treatment approach.

Much has been learned over the last 17 years regarding systemic interventions with substance abuse problems, particularly marital and family therapy; however, there is much more to investigate. It appears that the systemic literature has only begun to enter into the substance abuse field's mainstreams of theory and practice. An integration

of the knowledge in the fields of substance abuse and family therapy is vital if the progress made to date in treating addicts and their families is to continue and flourish. The possibilities are bright for family systems interventions in the overall treatment of substance abuse. This is especially encouraging considering how many people are addicted to substances and the impact on their family members.

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VITA

NAME: Jay E. Earles

BIRTH: July 6, 1967 in Kansas City, Missouri

EDUCATION: Olivet Nazarene University B.A. 1985-1989
Major in Psychology

Biola University M.A. 1989-1991
Rosemead School of Psychology

Biola University Psy.D 1991-1994
Rosemead School ofPsychology

EXPERIENCE: Eastwood School, Norwalk-La Mirada Unified School District, La Mirada, CA

Psychology Trainee 1990-1991

Acute Schizophrenic Unit, Camarillo State Hospital, Camarillo, CA

Psychology Trainee 1991-1991

Foothill Community Mental Health Center, Glendora, CA

Psychology Trainee 1991-1992

Biola Counseling Center, La Mirada, CA

Psychology Trainee 1992-1993

United States Army

Army Officer, psychology intern,
Dwight David Eisenhower Army
Medical Center, Ft. Gordon, GA 1993-Present